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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/777,102	02/13/2004	Sun Jin Yun	123056-0500443	4540
23429 7590 12/24/2008 LOWE HAUPTMAN HAM & BERNER, LLP 1700 DIAGONAL ROAD SUITE 300 ALEXANDRIA, VA 22314				
EXAMINER				
DIAZ, JOSE R				
ART UNIT		PAPER NUMBER		
2815				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/777,102

Applicant(s)

YUN ET AL.

Examiner

JOSE R. DIAZ

Art Unit

2815

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 September 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 September 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

DETAILED ACTION

Drawings

1. The drawings were received on September 30, 2008. These drawings are acceptable.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art in view of Riseman (US 4,169,000).

Regarding claim 1, Applicant's admitted prior art discloses a substrate comprising:

a lower substrate (1) supporting an upper substrate (3) [see fig. 1b of Applicant's disclosure];

a buffer layer (4) formed on an upper surface of the lower substrate (1) [see fig. 1b of Applicant's disclosure]; and

an adhesive layer (2) formed between the upper substrate (3) and the buffer layer (4) so that the upper substrate (3) is removably adhered to the lower substrate (1) by the adhesive layer (2) and the buffer layer (4) [see fig. 1b and paragraph 0006 of Applicant's disclosure] ;

wherein, the upper substrate (3) has a substantially higher flexibility than that of the lower substrate (1) [see paragraphs 0004 and 0009 of Applicant's disclosure].

Applicant's admitted prior art discloses substantially the claimed invention except for a buffer layer having a plurality of shapes with air gaps defined between each of said shapes and spaced apart from each other at regular intervals.

Riseman teaches a buffer layer (14/20) formed on an upper surface of the lower substrate (10,11,13) to have a plurality of shapes (Figure 7) with air gaps (12) defined between each of said shapes and spaced apart from each other at regular intervals [see fig. 7].

Regarding claim 4, Riseman teaches that that the plurality of shapes (14/20) is arranged on the patterned substrate (10,11,13), which has a wide variety of configurations [Figure 7]. With regards to the claimed configuration, the court has held that rearranging the parts of the reference device is an obvious matter of design choice. *In re Japikse*, 181 F.2d 1019, 86 USPQ 70 (CCPA 1950); *In Re Kuhle*, 526 F.2d 553, 188 USPQ 7 (CCPA 1975).

Applicant's admitted prior art and Riseman are analogous art because they are from the same field of endeavor as applicant's invention. At the time of the invention it would have been obvious to a person of ordinary skill in the art to include a plurality of shapes with air gaps defined between each of said shapes and spaced apart from each other at regular intervals in the structure taught by Applicant's admitted prior art. The motivation for doing so, as is taught by Riseman is reducing stress (col. 3, lines 46-49).

Therefore, it would have been obvious to combine Calhoun with Applicant's admitted prior art to obtain the invention of claims 1 and 4.

Regarding claim 2, Applicant's admitted prior art discloses that the lower substrate (1) is made of at least one of Si and SiO.sub.2 [see paragraph 0009].

Regarding claim 3, Applicant's admitted prior art discloses the buffer layer (4) is made of at least one of SiO.sub.2 and Al.sub.2O.sub.3 [see paragraph 0007].

Regarding claim 5, Applicant's admitted prior art discloses an adhesive film which is the same used by applicant in his invention, hence it is obvious that the adhesive is capable of withstand temperatures of less than 120 °C [paragraph 0008].

Regarding claim 6, Applicant's admitted prior art discloses the upper substrate (3) is made of plastic [see paragraph 0007].

Response to Arguments

4. Applicant's arguments, see remarks, filed September 30, 2008, with respect to the rejection(s) of claim(s) 1-6 under §103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Riseman.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOSE R. DIAZ whose telephone number is (571)272-1727. The examiner can normally be reached on Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth Parker can be reached on (571) 272-2298. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jerome Jackson Jr./
Primary Examiner, Art Unit 2815

/J. R. D./
Examiner, Art Unit 2815